American DJ ®

VERTI PRO II ™

User Instructions

American Dj
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Los Angeles, CA. 90058
www.americandj.com

Unpacking: Thank you for purchasing the VERTI PRO II™ by American DJ®. Every VERTI PRO II™ has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your fixture for any damage and be sure all accessories necessary to operate the unit have arrived intact. In the event damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Please, do not return this unit to your dealer without first contacting customer support.

Introduction: The VERTI PRO II™ is an intelligent, DMX compatible version of the standard Vertigo. This fixture can run in DMX mode, as a stand alone sound active piece, or in a Master/Slave configuration. The VERTI PRO II™ comes with several build in programs that will trigger when operating in master/slave mode. This unit is best used in multiples of four. This piece is best used with a fog or haze machine to enhance the beam output. An optional *VertiPro/C* controller may be purchased separately.

Warning! *The 1/4" phone plug on the unit is for the optional VertiPro/C. Do not attempt to connect an audio signal to this jack, this will damage the PC board and void your manufactures warranty!*

Customer Support: American DJ® provides a toll free customer support line, to provide set up help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at www.americandj.com for any comments or suggestions. Service Hours are Monday through Friday 9:00 a.m. to 5:00 p.m. Pacific Standard Time.

    Voice: (800) 322-6337
    Fax: (323) 582-2610
    E-mail: support@americandj.com

Warning! To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

Caution! There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, doing so will void your manufactures warranty. In the unlikely event your unit may require service please contact American DJ® customer support.

VERTI PRO II™   General Instructions

To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of this unit. These instructions contain important safety information regarding the use and maintenance of this unit. Please keep this manual with the unit, for future reference.

VERTI PRO II™   Features

- Linkable.
- Audio Sensitivity Knob.
- Sound-Active.
- DMX-512 Protocol Compatible.
- Full Focusing.
- Master/Slave Built-In Programs.
- Optional VertiPro/C Blackout Controller.

VERTI PRO II™   Warranty Registration

The VERTI PRO II™ carries a one year (365 days) limited warranty. We recommend you fill out the enclosed warranty card to validate your purchase. All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. Please contact American DJ® customer support for a R.A. number.

VERTI PRO II™   Safety Precautions

- This unit may blow a fuse if the maximum allotted load of 10 amps (220v = 5 amps) is reached. If the fuse needs replacement, always replace the fuse with same exact type that was remove. Use of a different type fuse from that which is recommended may cause fire or electric shock and will void the manufactures warranty
- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture
- Do not spill water or other liquids into or on to your unit
- Be sure that the local power outlet match that of the required voltage for your unit
- Do not attempt to operate this unit if the power cord has been frayed or broken
- Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short
- Disconnect from main power before making any type of connection
- Do not remove the cover under any conditions. There are no user serviceable parts inside
- Never operate this unit when it's cover is removed
- Never plug this unit in to a dimmer pack
- Always be sure to mount this unit in an area that will allow proper ventilation. Allow about 6" (15cm) between this device and a wall
- Do not attempt to operate this unit, if it becomes damaged
- This unit is intended for indoor use only, use of this product outdoors voids all warranties
- During long periods of non-use, disconnect the unit's main power
- Always mount this unit in safe and stable matter
- Power cords should be routed so they are not likely to be walked on, pinched by items placed upon or against them.
- Cleaning -The fixture should be cleaned only as recommended by the manufacturer. See page 7 for cleaning details
- Heat -The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- The fixture should be serviced by qualified service personnel when:
  - A. The power-supply cord or the plug has been damaged.
  - B. Objects have fallen, or liquid has been spilled into the unit.
  - C. The unit has been exposed to rain or water.

Operating Modes: *You can operate the VERTI PRO II™ in three different modes:*

• **Stand-Alone mode (Usually for single unit operation)** - The unit will react to sound, chasing through the several built in programs. You can also use the optional VertiPro/C remote control to blackout the unit.

• **Master/Slave mode** - Allows you to daisy chain up to 4 fixtures together for a synchronized light show. The fixtures will react to sound chasing through several built in programs. You can also use the optional VertiPro/C remote control to change programs and blackout the units.

• **DMX control mode** - This function will allow you to control each fixtures DMX traits with a standard DMX 512 controller such as the American DJ® Show Designer™ or DMX Operator.™

NOTE: *Stand-Alone and Master/Slave operation require a sound source to operate properly. The units will blackout to conserve lamp life when inactive for more than 60 seconds. A single sound source will reactivate the units.*

Stand Alone Mode:

1. To operate a single unit or several units as individuals in stand alone mode, turn dip switch number 10 to the on position (see page 13) and plug the unit(s) in. *If you are running more than one unit in stand alone mode do not link the units together.*

2. Adjust the sensitivity knob on the bottom of the unit so the unit will react to sound and cycle through the internal chases. Turning the sensitivity knob in a clockwise direction will make the fixture more sensitive to sound, turning the sensitivity knob in counter-clockwise direction will make the fixture less sensitive to sound.

Master-Slave Operation (Sound Active): In Master-Slave operation one unit will act as the controlling unit, the others will react to the controlling units programs. Any unit can act as a master or a slave.

1. Using standard XLR microphone cables, daisy chain your units together via the XLR connectors on the rear of the unit. Remember the Male XLR connector is the input and the Female XLR is the output. The first unit in (master) will use the female XLR connector only. Refer to the set-up procedures beginning on page 8.

2. Follow the Master-Slave dip-switch chart on page 13 for proper

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dip-switch settings.

3. The optional *VertiPro/C Blackout Controller* may be used in this operation mode to control a blackout function.

4. After the unit settings have been set and are plugged in, adjust the sensitivity knob on the rear of the master unit to make them react to sound.

Master/Slave Linking:

For a more dramatic effect, link several Color units together.

Optional VertiPro/C or VertiPro/C blackout controller

To next VERTI PRO II™ if applicable
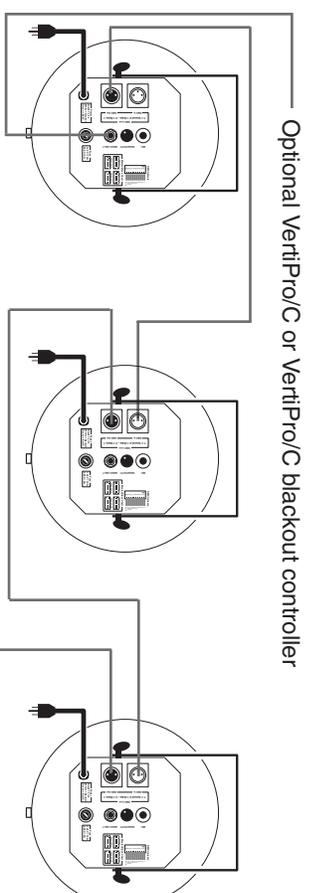
Universal DMX Control: Operating through a DMX controller allows the freedom to create unique programs tailored to one's individual needs.

1. The VERTI PRO II™ uses one DMX channel. This channel controls the rotation of the unit's internal wheel. Please refer to page 14 for a detailed description of the DMX traits.

2. To control your fixture in DMX mode, follow the unit set-up procedures beginning on page 8 as well as the set-up specifications that are included with your DMX controller.

3. Use the controller's faders to control the various DMX fixture traits.

4. This will allow you to create custom programs.

5. When using a DMX controller and setting up for DMX operation follow the dip switch settings on page 13.

6. For help operating in DMX operation consult the manual included with your DMX controller.

7. For longer cable runs (more than a 100 feet) use a terminator on the last fixture in you DMX chain.

Typical DMX Linking:

To next DMX unit or terminate.
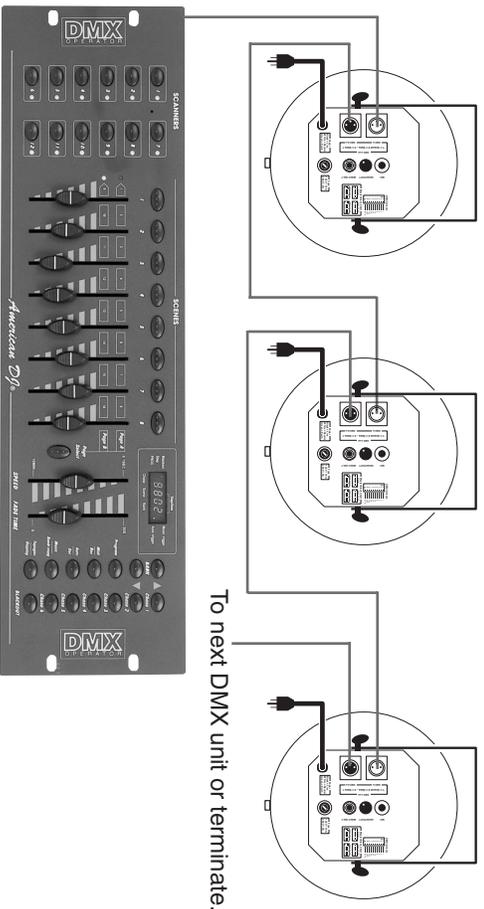
Power Supply: Before plugging your unit in, be sure the source voltage in your area matches the required voltage for your American DJ® VERTI PRO II.™ Because line voltage may vary from venue to venue, you should be sure your unit voltage matches the wall outlet voltage before attempting to operate you fixture.

DMX-512: DMX is short for Digital Multiplex. This is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA "IN" and DATA "OUT" XLR terminals located on all DMX fixtures (most controllers only have a DATA "OUT" terminal).

DMX Linking: DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned a DMX address of 1 may

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be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

Dip-switches in DMX mode: This unit uses dip switches to assign a DMX address. Each dip switch represents a binary value.

Dip Switch 1 address equals 1
Dip Switch 2 address equals 2
Dip Switch 3 address equals 4
Dip Switch 4 address equals 8
Dip Switch 5 address equals 16
Dip Switch 6 address equals 32
Dip Switch 7 address equals 64
Dip Switch 8 address equals 128
Dip Switch 9 address equals 256
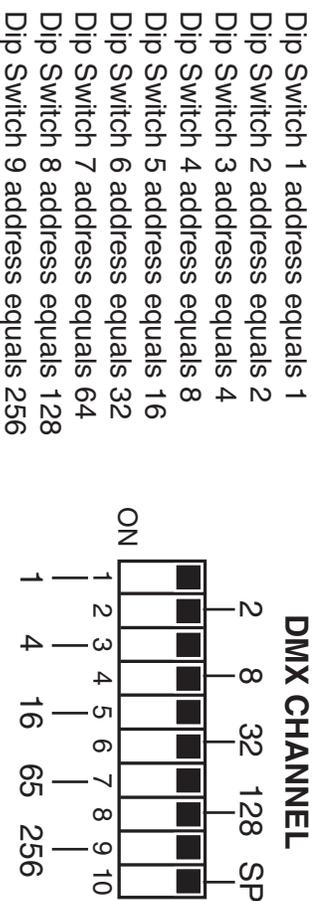
Each dip switch has a preset value. A specific DMX address is set by combining the dip switches that sum your desired value. For example: To achieve a DMX address of 21, combine dip switches 1, 3, and 5. Sense dip switch 1 has a value of 1, dip switch 3 has a value of 4, and dip switch 5 has a value of 16, the combination of the create a DMX value of 21.

Set DMX address 21:
Dip-switches # 1 = 1
             3 = 4
             5 = 16
             = 21

Set DMX address 201:
Dip-switches # 1 = 1
             4 = 8
             7 = 64
             8 = 128
             = 201

DMX CHANNEL

ON
1 2 3 4 5 6 7 8 9 10
1 4 16 65 256
2 8 32 128 SP

Data Cable Requirements (For DMX and Master/Slave Operation): The VERTI PRO II™ can be controlled via DMX-512 protocol. The DMX address is set using the dip-switches on the rear panel of the VERTI PRO II™. Your unit excepts 3-pin XLR connector for data input and data output (Figure 5). When using a DMX controller with 5-Pin XLR output jacks or when linking from a DMX fixture with 5-Pin XLR jack to the VERTI PRO II™, be sure to follow the pin conversion chart on page 12. If you are making your own cables, be sure to use standard

dard two conductor shielded cable (This cable may be purchased at almost all pro sound and lighting stores). Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and can not be split.

Notice: Be sure to follow figures 6 and 7 when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit and erratic behavior.

XLR Pin Configuration
Pin 1 = Ground
Pin 2 = Data Compliment (negative)
Pin 3 = Data True (positive)

Figure 6

XLR Male Socket
1 Ground
2 Cold
3 Hot

XLR Female Socket
2 Cold
1 Ground
3 Hot

DMX512 OUT
3-PIN XLR

COMMON
DMX +
DMX -

DMX512 IN
3-PIN XLR
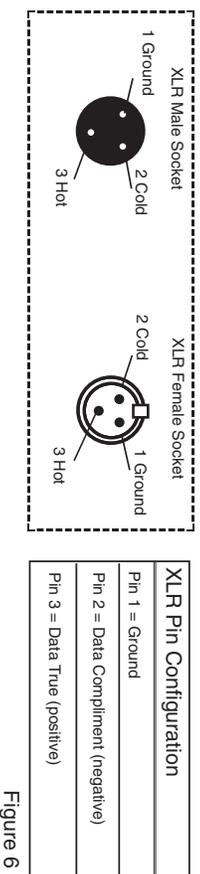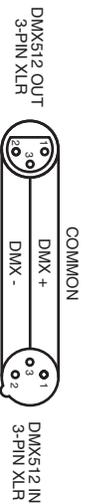
Figure 7

Special Note: Line Termination. When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 90-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This unit is inserted in the female XLR connector of the last unit in your daisy chain to terminate the line. Using a cable terminator (ADJ part number ZDMX/T) will decrease the possibilities of erratic behavior.

Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

Figure 8

5-Pin XLR DMX Connectors. Some manufactures use 5-pin XLR connectors for DATA transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors in to a 3-pin line a cable adaptor must be used, these adaptors are readily available at most electric stores. The chart below details a proper cable conversion.

3-Pin XLR to 5-Pin XLR Conversion		
Conductor	3-Pin XLR Female (Out)	5-Pin XLR Male (In)
Ground/Shield	Pin 1	Pin 1
Data Compliment (- signal)	Pin 2	Pin 2
Data True (+ signal)	Pin 3	Pin 3
Not Used	Not Used	Do Not Use
Not Used	Do Not Use	Do Not Use

1
2

1
2
3
4
5
6
7
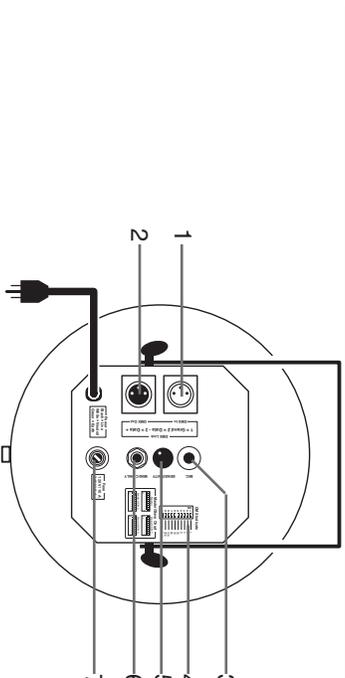
1. **DMX Input Jack -** This jack is used to accept an incoming DMX or Master/Slave signal.
2. **DMX Output Jack -** This jack is used to send the incoming DMX or Master/Slave signal to another DMX fixture.
3. **Internal Mic -** This mic triggers the unit in sound active mode.
4. **Dip Switches -** These switches are used to set the DMX and Master/Slave address.
5. **Mic Sensitivity -** This adjust audio sensitivity of the internal mic (3). Turning the sensitivity knob in the clockwise direction will increase sound sensitivity. Turning the knob in a counter clockwise direction will decrease sound sensitivity.
6. **Remote Control Input -** *Do not attempt to connect an audio signal to this jack, this will damage the unit!* This jack is for use with the optional VertiPro/C controller only.
7. **Fuse Holder -** This housing stores the protective fuse. Always replace with the exact same type fuse, unless otherwise instructed to do so by an authorized American DJ® service technician.

Caution: Always replace with the exact same type lamp and fuse, unless otherwise specified by an authorized American DJ® technician. Replacing with anything other than the specified part can damage the unit and will void the manufactures warranty.

Warning: If, after replacing the lamp or fuse either one continues to blow, STOP using the unit. Contact customer support for further instructions, you may have to return the unit for servicing. Continuing to use the unit may cause serious damage.

Fuse Replacement: Disconnect the unit's main power supply. Insert a standard flat head screw driver in to the fuse holder housing. Turn the screwdriver in counter-clockwise direction to remove the fuse holder. Remove the fuse holder to expose the fuse. Remove the old fuse and discard it. Replace the fuse with the same type. Insert the fuse holder back into it's housing and turn it in clockwise direction to lock the holder in place.

Lamp Replacement: Caution! Never attempt to change the lamp while the fixture is plugged in. Always disconnect the main power and allow the unit ample time to cool before attempting to replace the lamp. Lamp replacement has been made simple by incorporating the use of a flip-up top cover that is retained by a single thumb screw.

1. Be sure to follow the proper handling procedures that deal with halogen lamps.
2. Remove the single thumb screw located in the front of the unit.
3. Flip-down the front cover to access the lamp socket assembly. The cover is on hinges and will not fall off.
4. Carefully remove the old lamp and discard it in the trash.
5. Replace the lamp with an exact match and reassemble.
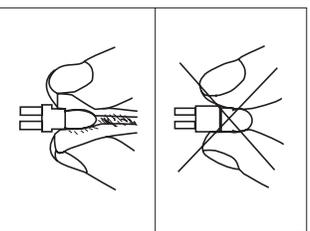
Halogen Lamp Warning:

This fixture is fitted with a halogen lamp which is highly susceptible to damage if improperly handled. Never touch the lamp with your bare fingers as the oil from your hands will shorten lamp life. Also, never move the fixture until the lamp has had ample time to cool. Remember, lamps are not covered under warranty conditions.

Trouble Shooting:
Listed below are a few common problems that you may encounter, with solutions.

No light output from the unit;
1. Be sure you have connected your unit into a standard 120V (or 220v depending on the models voltage requirements) wall outlet.
2. Be sure the external fuse has not blown. The fuse is located on the rear panel of the unit.
3. Remove the lamp cover and be sure the lamp is seated in its socket properly. Occasionally lamps become loose during shipping be sure the lamp is push in to its socket all the way. Remember not to touch the lamp with your bare fingers.
4. Be sure the fuse holder is completely and properly seated.

Unit does not respond to sound;
1. Low frequencies (bass) should cause the unit to react to sound. Tapping on the microphone, quiet or high pitched sounds may not activate the unit.
2. Be sure the *SENSITIVITY KNOB (3)* is not set to the maximum position.

Fixture Cleaning:
Due to fog residue, smoke, and dust cleaning the internal and external optical lenses and mirror should be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates (I.e. smoke, fog residue, dust, dew). In heavy club use we recommend cleaning on a monthly basis. Periodic cleaning will ensure longevity, and crisp output.

1. Use normal glass cleaner and a soft cloth to wipe down the outside casing.
2. Use a brush to wipe down the cooling vents and fan grill.
3. Clean the external lens with glass cleaner and a soft cloth every 20 days.
4. Clean the internal lens with glass cleaner and a soft cloth every 30-60 days.
5. Always be sure to dry all parts completely before plugging the unit back in.

The VERTI PRO II™ is a single DMX channel fixture

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01 ──────────

CW Fast

CW Slow
        Stop
127
128
129
        CCW Slow

CCW Fast

255 ──────────
```
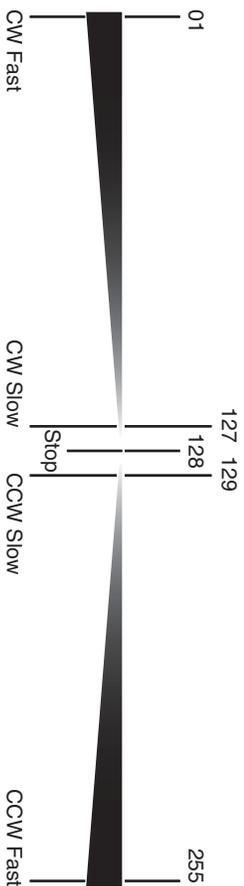
This chart details the Master/Slave dip switch setting for Master/Slave configuration for four units. Use these dip switch setting when you will be using two or more fixtures in a Master/Slave configuration. The "Master - Head 1" settings should only be used once.

ON

```
1 2 3 4 5 6 7 8 9 10
Master - Head 1
```

```
1 2 3 4 5 6 7 8 9 10
Head 3
```

ON

```
1 2 3 4 5 6 7 8 9 10
Head 2
```

ON

```
1 2 3 4 5 6 7 8 9 10
Head 4
```
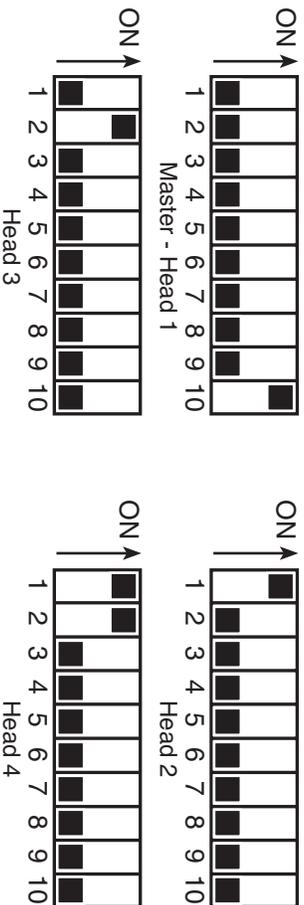
This chart list the DMX dip switch setting for single head operation. When using this fixture as a stand alone unit or when using multiple VERTI PRO IIs as stand alone units, be sure all the fixtures match the illustrated dip switch setting (10 to the on position - all others off).

ON

```
1 2 3 4 5 6 7 8 9 10
Master - Head 1
```
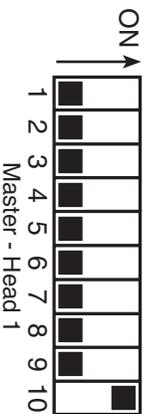
This chart list the DMX dip switch setting for DMX address 1 through 511. Follow the instructions below to configure fixture dip switches with your desired DMX address.

DMX Address Quick Reference Chart

DIP SWITCHES

DMX DIP Switch Settings — X = OFF, O = ON

Dip switch positions: #1 #2 #3 #4 #5 (left block) and #9 #8 #7 #6 (Dip Switch Position, top). DMX Address grid:

| 1	33	65	97	129	161	193	225	257	289	321	353	385	417	449	481
2	34	66	98	130	162	194	226	258	290	322	354	386	418	450	482
3	35	67	99	131	163	195	227	259	291	323	355	387	419	451	483
4	36	68	100	132	164	196	228	260	292	324	356	388	420	452	484
5	37	69	101	133	165	197	229	261	293	325	357	389	421	453	485
6	38	70	102	134	166	198	230	262	294	326	358	390	422	454	486
7	39	71	103	135	167	199	231	263	295	327	359	391	423	455	487
8	40	72	104	136	168	200	232	264	296	328	360	392	424	456	488
9	41	73	105	137	169	201	233	265	297	329	361	393	425	457	489
10	42	74	106	138	170	202	234	266	298	330	362	394	426	458	490
11	43	75	107	139	171	203	235	267	299	331	363	395	427	459	491
12	44	76	108	140	172	204	236	268	300	332	364	396	428	460	492
13	45	77	109	141	173	205	237	269	301	333	365	397	429	461	493
14	46	78	110	142	174	206	238	270	302	334	366	398	430	462	494
15	47	79	111	143	175	207	239	271	303	335	367	399	431	463	495
16	48	80	112	144	176	208	240	272	304	336	368	400	432	464	496
17	49	81	113	145	177	209	241	273	305	337	369	401	433	465	497
18	50	82	114	146	178	210	242	274	306	338	370	402	434	466	498
19	51	83	115	147	179	211	243	275	307	339	371	403	435	467	499
20	52	84	116	148	180	212	244	276	308	340	372	404	436	468	500
21	53	85	117	149	181	213	245	277	309	341	373	405	437	469	501
22	54	86	118	150	182	214	246	278	310	342	374	406	438	470	502
23	55	87	119	151	183	215	247	279	311	343	375	407	439	471	503
24	56	88	120	152	184	216	248	280	312	344	376	408	440	472	504
25	57	89	121	153	185	217	249	281	313	345	377	409	441	473	505
26	58	90	122	154	186	218	250	282	314	346	378	410	442	474	506
27	59	91	123	155	187	219	251	283	315	347	379	411	443	475	507
28	60	92	124	156	188	220	252	284	316	348	380	412	444	476	508
29	61	93	125	157	189	221	253	285	317	349	381	413	445	477	509
30	62	94	126	158	190	222	254	286	318	350	382	414	446	478	510
31	63	95	127	159	191	223	255	287	319	351	383	415	447	479	511
32	64	96	128	160	192	224	256	288	320	352	384	416	448	480	

DMX Address

The center numbers of this chart (1-511) represent a DMX address. The "X"s and "O"s along the top and side of the chart represent dip switch poistion ("X" for off and "O" for on). Find your desired DMX address from the center chart. Identify the position for dip switches 1-5 from the chart on the left and dip switches 6-9 from the chart on the top. Adjust the dip switches on your fixture to match the position settings of the chart. For fixtures with 10 dip switches; dip switch 10 is reserved for special functions.

1-YEAR LIMITED WARRANTY

A. American DJ® hereby warrants, to the original purchaser, American DJ® products to be free of manufacturing defects in material and workmanship for a period of 1 Year (365 days) from the date of purchase. This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.

B. For warranty service, send the product only to the American DJ® factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, American DJ® will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, American DJ® shall have no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof.

C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which American DJ® concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the American DJ® factory unless prior written authorization was issued to purchaser by American DJ®; if the product is damaged because not properly maintained as set forth in the instruction manual.

D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up. During the period specified above, American DJ® will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of American DJ® under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of American DJ®. All products covered by this warranty were manufactured after January 1, 1990, and bear identifying marks to that effect.

E. American DJ® reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured.

F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by American DJ® in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. The consumer's and or Dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall American DJ® be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

G. This warranty is the only written warranty applicable to American DJ® Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

H. All lamps and fuses are not covered under this warranty.

MODEL: VERTI PRO II™

SPECIFICATIONS:

VOLTAGE: 120V~60Hz / 220V~50Hz
ZB-64514 120v/300w or
ZB-64516 220v/300w

LAMP:

DIMENSIONS: 10.5" (H) X 11" (W) X 10.5 " (D)
(with yoke extended)

WEIGHT: 10 LBS / 7.5 KGS.

FUSE: 120V = 10 AMP GMA
220V = 5 AMP GMA

WORKING POSITION: ANY SAFE POSITION

COOLING: FAN COOLED

DUTY CYCLE: 30 MIN. ON, 10 MIN. OFF

GOBOS: NONE

COLORS: MULTIPLE

Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

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